DERWENT-ACC-NO: 1994-062112

DERWENT-WEEK: 199408

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TITLE: New block isocyanate used as setting agent of vinyl chloride - obtd. by

reacting hexa: methylene di:isocyanate polymer, mono: alcohol, and/or oxime,

lactam and active methylene cpds.

PATENT-ASSIGNEE: ASAHI CHEM IND CO LTD[ASAH]

PRIORITY-DATA: 1992JP-0176303 (July 3, 1992)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES MAIN-IPC
JP 06016769 A January 25, 1994 N/A 004
C08G 018/80

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP 06016769A N/A 1992JP-0176303 July

3, 1992

INT-CL (IPC): C08G018/10; C08G018/62; C08G018/80; C08L027/06; C08L075/04

ABSTRACTED-PUB-NO: JP 06016769A

BASIC-ABSTRACT: Isocyanate prepd. by reacting (1) hexamethylene disocyanate

polymer of isocyanurate bond, bullet bond, or urethane bond, contg. two or more

of free isocyanate gps., (2) 1/3 equiv. or less of monoalcohol per isocyanate

gp. of the polymer, and (3) 2/3 equiv. or less of one or more of oximes,

lactams, and active methylene cpds. is new.

Oximes are 2-butanone oxime, acetone oxime lactams are 1-epsilon-caprolactam $\begin{tabular}{ll} \hline \end{tabular}$

and monoalcohol is isopropyl alcohol or 2-ethyl hexyl alcohol. Plasticisers

are pref. n-butyl phthalate, or di-2-ethyl hexyl phthalate.

USE/ADVANTAGE - Block isocyanate is used as setting substance of vinyl chloride

sol., and has good solubility in plasticisers.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

NEW BLOCK ISOCYANATE SET AGENT VINYL CHLORIDE OBTAIN REACT HEXA

METHYLENE DI

ISOCYANATE POLYMER MONO ALCOHOL OXIME LACTAM ACTIVE METHYLENE COMPOUND

DERWENT-CLASS: A14 A25 A26

CPI-CODES: A04-E02B; A04-E03B; A05-G01E; A05-J; A05-J02; A08-C06; A08-C08;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0271U; 0776U ; 1278U ; 1455U ; 5243U ; 5306U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0002 0004 0020 0034 0054 0057 0060 0063 0066 0147 0150 0153 0156

0159 0162 0165 0168 0207 0209 0218 0226 0759 0760 1283 1294 1760 2211 2220 2232

2285 2299 2300 2303 2572 3191 3217

Multipunch Codes: 017 034 036 038 150 153 207 209 311 341 51& 532 536 55& 684

017 02& 034 040 06- 061 062 063 08& 10- 141 15- 165 17& 17- 18& 18- 19& 19- 20&

26& 273 308 315 341 48- 654 688

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1994-027848

12/27/2002, EAST Version: 1.03.0007

DERWENT-ACC-NO: 2001-074624

DERWENT-WEEK: 200115

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TITLE: Blocked polyisocyanate composition useful for one pack coating compositions contains malonic acid diester as blocking agent and

monoalcohol as

active hydrogen containing compound

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1999JP-0102447 (April 9, 1999)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 2000290493 October 17, 2000 N/A 009

C08L 075/04

Α

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP2000290493A N/A 1999JP-0102447 April

9, 1999

INT~CL (IPC): C08G018/80; C08K005/01; C08L075/04; C09D175/04

ABSTRACTED-PUB-NO: JP2000290493A

BASIC-ABSTRACT: NOVELTY - A blocked polyisocyanate composition

contains: (1)

blocked polyisocyanate using blocking agent containing a malonic acid diester;

(2) monofunctional active hydrogen-containing compound containing a monoalcohol

with a boiling point of less than or equal to 200 deg. C; and (3) solvent

component containing toluene.

DETAILED DESCRIPTION - A blocked polyisocyanate composition contains: (1)

blocked polyisocyanate obtained by blocking a polyisocyanate as isocyanurate

type polyisocyanate derived from an aliphatic and/or an alicyclic diisocyanate

with a blocking agent containing a malonic acid diester (greater than or

equaling 50equivalent% per isocyanate groups); (2) monofunctional active

 $\label{lem:containing} \ \mbox{compound containing a monoalcohol with a boiling point of} \ .$

less than or equaling 200 deg. C; and (3) solvent component containing toluene

at least partly. An INDEPENDENT CLAIM is also included for one pack

compositions consisting of the blocked polyisocyanate compositions and polyhydroxyl compounds. USE - The block polyisocyanate compositions are useful for top and intermediate coats for cars, chipping-resistant coatings, electrodeposition coatings, coatings for car parts suitable for low temperature baking for plastic substrates, car repair coatings, pre-coated metals and corrosion-proof steel for metal products such as household electric appliances and business machines, plastic coatings, adhesives, adhesion-imparting agents and sealing materials. ADVANTAGE - The blocked polyisocyanate compositions have excellent characteristics at a low temperature and storage stability and are not liable to crystallize at a low temperature. The one pack coating compositions have excellent low temperature curing characteristics and storage stability. CHOSEN-DRAWING: Dwg.0/0 TITLE-TERMS: BLOCK COMPOSITION USEFUL ONE PACK COATING COMPOSITION CONTAIN MALONIC BLOCK AGENT ACTIVE HYDROGEN CONTAIN COMPOUND DERWENT-CLASS: A82 A85 G02 M13 CPI-CODES: A02-C; A05-G01E1; A08-S02; A12-B04C; G02-A02H; G02-A05E; M13-H05; ENHANCED-POLYMER-INDEXING: Polymer Index [1.1] 018 ; P0000 Polymer Index [1.2] 018; ND00; Q9999 Q7114*R; Q9999 Q9234 Q9212; N9999 N7056 N7034 N7023 ; B9999 B4159 B4091 B3838 B3747 ; B9999 B3532 B3372 ; B9999 B4988*R B4977 B4740 ; Q9999 Q6644*R ; Q9999 Q7681*R ; Q9999 Q7330*R ; K9665 Polymer Index [1.3] 018 ; D01 D11 D10 D13*R D50 F73 ; A999 A157*R Polymer Index [1.4] 018 ; D01 D11 D10 D50 D63 F90 F41 E28 E00 ; A999 A180

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-021456

DERWENT-ACC-NO: 2000-090056

DERWENT-WEEK: 200017

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TITLE: Monomer composition for production of vinyl polymer - contains

vinyl

monomer having methane tricarboxylic monoamide unit and monoalcohol

and/or diol

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1997JP-0236995 (September 2, 1997)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 11080313 A March 26, 1999 N/A 012

C08G 018/80

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP 11080313A N/A 1997JP-0236995

September 2, 1997

INT-CL (IPC): C08F026/02; C08G018/80; C08G018/81; C09D175/04; C09J175/04

ABSTRACTED-PUB-NO: JP 11080313A

BASIC-ABSTRACT: NOVELTY - A monomer composition contains: (a) a vinyl

monomer

having a methane tricarboxylic monoamide unit; and (B) a monoalcohol and/or diol.

 $\ensuremath{\mathsf{USE}}$ - The monomer composition is used in producing the vinyl polymer to obtain

a one-component thermosetting composition. The thermosetting composition is

used in an automobile over coat/intermediate coat, chipping-resistant coating,

electrodeposition paint, coating for automobile parts, including a bumper,

coating for repairing automobile, precoating metal/rust preservative steel

sheet for metal prods., including household electrical appliances, office

machines, coating for building materials, coating for plastics, including

polypropylene, acrylonitrile-butadiene-styrene resin, adhesive, adhesion-providing agent, sealing material.

ADVANTAGE - The vinyl monomer composition. has low crystallinity and high

polymerization stability. The resulting one-component thermosetting

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composition. has superior low-temp. setting, shelf life stability,
smoothness,
coating appearance, including glossiness.
CHOSEN-DRAWING: Dwg.0/2
TITLE-TERMS:
MONOMER COMPOSITION PRODUCE VINYL POLYMER CONTAIN VINYL MONOMER METHANE
UNIT
DIOL
DERWENT-CLASS: A14 A41 A82 E19 G02 M13
CPI-CODES: A04-D; A05-G01E1; A12-B01; A12-B01K; E10-E04H; E10-E04L;
G02-A02C;
G02-A02D; G02-A02H; G03-B02D; G03-B02E4; G04-B02; M14-K;
CHEMICAL-CODES:
Chemical Indexing M3 *01*
   Fragmentation Code
   H4 H401 H402 H481 H482 H581 H8
                                     M210 M211 M212
   M213 M214 M215 M216 M220 M221 M231 M232 M233 M272
   M280 M281 M311 M312 M313 M314 M315 M316 M320 M321
   M322 M331 M332 M333 M340 M342 M383 M391 M392 M416
   M620 M781 M782 M903 M904 Q020 Q030 Q130 Q331 Q332
   Q462 Q464
   Markush Compounds
    200008-IOA01-K 200008-IOA01-M 200008-IOA01-U
ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
    018 ; G0022*R D01 D51 D53 D12 D10 D58 F95 F70 ; H0011*R ; S9999
    S1627 S1605 ; L9999 L2528 L2506 ; L9999 L2664 L2506
Polymer Index [1.2]
    018 ; Q9999 Q9234 Q9212 ; Q9999 Q9289 Q9212 ; B9999 B4193 B4091
   B3838 B3747 ; B9999 B3816 B3747 ; Q9999 Q7681*R ; Q9999 Q7330*R
    ; Q9999 Q7136 Q7114 ; Q9999 Q6826*R ; B9999 B5301 B5298 B5276 ;
   Q9999 Q6644*R ; Q9999 Q9007 ; Q9999 Q9449 Q8173 ; Q9999 Q7192 Q7114
    ; ND01 ; B9999 B3532 B3372 ; B9999 B4988*R B4977 B4740 ; K9665 ;
   B9999 B4411 B4400 B4240
Polymer Index [1.3]
   018 ; D01 F27 F26 F28 ; A999 A475
Polymer Index [2.1]
   018 ; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83 ;
   H0000; P1150; P1343
Polymer Index [2.2]
   018 ; R00817 G0475 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D83 F12
    ; R00806 G0828 G0817 D01 D02 D12 D10 D51 D54 D56 D58 D84 ; R00708
   G0102 G0022 D01 D02 D12 D10 D19 D18 D31 D51 D53 D58 D76 D88 ; H0033
   H0011; P0328; P1741; P0088; P0191
Polymer Index [2.3]
    018 ; B9999 B5447 B5414 B5403 B5276 ; K9574 K9483 ; K9676*R
SECONDARY-ACC-NO:
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CPI Secondary Accession Numbers: C2000-025261

DERWENT-ACC-NO: 1999-186355

DERWENT-WEEK: 199919

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TITLE: Curable composition used in car paint - comprises active

methylenic

block isocyanate group-containing vinyl polymer and mono-alcohols

and/or diols

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1997JP-0210216 (July 22, 1997)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 11035658 A February 9, 1999 N/A 009

C08G 018/80

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP 11035658A N/A 1997JP-0210216 July

22, 1997

INT-CL (IPC): C08G018/80; C08G018/81; C09D175/04; C09J175/04

ABSTRACTED-PUB-NO: JP 11035658A

BASIC-ABSTRACT: Curable compsn. comprises: (A) active methylenic block isocyanate gp.-contg . vinyl polymer obtained by reacting an

isocyanate gp.-contg . Vinyi polymer obtained by reacting an isocyanate

gp.-contg. vinyl polymer (average isocyanate functional gp. no. = 2-25

and Mn = 1,000-20,000) with an active methylenic cpd. at least contg. diester

malonate; and (B) monoalcohols and/or diols with b.pt. up to 250 deg. C. Mol

ratio of OH-gp. in (B) vs. blocked isocyanate gp. in (A) is 0.2-10.

One pack liq. thermosetting compsn. comprises the curable compsn. and polyols.

USE - Used in car paint, car repair paint, precoated metals for office goods,

corrosion-proof steel plate, sealant, etc..

ADVANTAGE - Product has good low temp. curability, storage stability and coated appearance.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

CURE COMPOSITION CAR PAINT COMPRISE ACTIVE BLOCK ISOCYANATE GROUP

CONTAIN VINYL

POLYMER MONO

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DERWENT-CLASS: A13 A14 A25 A82 G02 G03
CPI-CODES: A05-G01E1; A10-B01; A12-B01K; A12-B04; G02-A02H; G02-A05E;
ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
    018 ; G0022*R D01 D51 D53 ; R00708 G0102 G0022 D01 D02 D12 D10 D19
    D18 D31 D51 D53 D58 D76 D88 ; R00657 G0395 G0384 G0339 G0260 G0022
   D01 D11 D10 D12 D26 D51 D53 D58 D63 D88 F41 F89 ; R01130 G0351
G0340
   G0339 G0260 G0022 D01 D11 D10 D12 D26 D51 D53 D58 D63 D87 F41 F89
    ; R24054 G0384 G0339 G0260 G0022 D01 D11 D10 D12 D26 D51 D53 D58
   D63 D87 F41 F73 F89; H0033 H0011; L9999 L2528 L2506; H0328;
   L9999 L2391 ; L9999 L2073 ; M9999 M2073 ; S9999 S1627 S1605 ; P1741
    ; P0088
Polymer Index [1.2]
   018 ; ND04 ; ND01 ; Q9999 Q7158*R Q7114 ; Q9999 Q9234 Q9212 ; N9999
   N6917 ; K9552 K9483 ; Q9999 Q7192 Q7114 ; Q9999 Q7136 Q7114 ; Q9999
   Q9007 ; B9999 B4988*R B4977 B4740 ; K9665 ; B9999 B3532 B3372 ;
   K9927 ; B9999 B3678 B3554
Polymer Index [1.3]
   018 ; R00426 D01 D11 D10 D50 D88 F12 F13 ; C999 C088*R C000 ; C999
   C293
Polymer Index [1.4]
   018 ; G1025*R G0997 D01 F28 F26 G1003*R F27 ; A999 A157*R
Polymer Index [1.5]
   018 ; D01 D11 D10 D50 D88 F53 ; A999 A033
Polymer Index [1.6]
   018 ; D01 G2595*R D11 D10 D50 D63 D86 F41 G3430 D02 D19 D18 D31
   D76 D88 ; R01135 D01 D11 D10 D50 D63 D84 F41 F89 ; R00862 D01 D02
   D11 D10 D19 D18 D31 D50 D76 D87 ; R08574 D01 D11 D10 D50 D63 D86
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SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1999-054878

F34 F41 F89 ; A999 A475 ; A999 A771

DERWENT-ACC-NO: 1998-537531

DERWENT-WEEK: 199940

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TITLE: Curable composition for use in paints - comprises active

methylenic

block poly:isocyanate; metal chelate(s); mono- and/or di-alcohol(s) and

chelating agent

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1997JP-0042662 (February 26, 1997)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 10237154 A September 8, 1998 N/A 010

C08G 018/80

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP 10237154A N/A 1997JP-0042662

February 26, 1997

INT-CL (IPC): C08G018/80; C08L075/04

ABSTRACTED-PUB-NO: JP 10237154A

BASIC-ABSTRACT: Curable compsn. comprises (a) active methylenic block polyisocyanate obtained by reacting polyisocyanate and an active methylenic

 $\operatorname{cpd.}$, (b) metal chelates wherein the metal is Al, Ti and Zr, and/or alcoholate

thereof, (c) mono- and/or di-alcohols and (d) a chelating agent.

Also claimed is liq. type thermocurable compsn. comprising the curable compsn.

and (e) polyvalent hydroxy cpd..

USE - Used in car paints (top and middle coat), anti-chipping paints, electrodeposition paints, car parts paint, etc..

ADVANTAGE - Product excels in low temp. curability and storage stability while retaining resistance to heat yellowing.

•

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

CURE COMPOSITION PAINT COMPRISE ACTIVE BLOCK POLY ISOCYANATE METAL CHELATE MONO

DI ALCOHOL CHELATE AGENT

DERWENT-CLASS: A25 A82 G02 M13

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CPI-CODES: A08-C09; A08-C09A; A08-D04A; A08-D05; A12-B01; A12-T05;
G02-A03;
M13-H05;
UNLINKED-DERWENT-REGISTRY-NUMBERS: 0304U; 1068U ; 1345U ; 1711U
ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
    018 ; R00420 G1070 G0997 D01 D11 D10 D50 D86 F29 F26 ; G1843*R D01
    F73 G1854*R G1843 D10*R D13*R ; R01455 G1854 G1843 D01 D11 D10 D50
   D88 F73 ; H0022 H0011 ; H0259 ; L9999 L2528 L2506 ; L9999 L2620
   L2506 ; M9999 M2164 M2153 ; L9999 L2391 ; L9999 L2164 L2153 ;
   F77 D01 ; P1638 P1592 F77 D01
Polymer Index [1.2]
    018 ; ND04 ; B9999 B4988*R B4977 B4740 ; K9665 ; B9999 B3532 B3372
    ; B9999 B4682 B4568 ; Q9999 Q7114*R ; Q9999 Q7158*R Q7114 ; Q9999
   Q9234 Q9212 ; Q9999 Q9303 Q9212 ; B9999 B4159 B4091 B3838 B3747
Polymer Index [1.3]
   018 ; H0226
SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1998-161549
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DERWENT-ACC-NO: 1998-371098

DERWENT-WEEK: 199833

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TITLE: Curing agent composition used e.g. in electroplating paints -

comprises

active methylene-based block poly:isocyanate, aluminium-chelate or

titanium-chelate. and mono- and=or di-alcohol

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1996JP-0318545 (November 15, 1996)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 10147627 A June 2, 1998 N/A 010

C08G 018/80

APPLICATION-DATA:

APPL-DESCRIPTOR PUB-NO APPL-NO

APPL-DATE

JP 10147627A N/A 1996JP-0318545

November 15, 1996

INT-CL (IPC): C08G018/22; C08G018/80; C09D175/04

ABSTRACTED-PUB-NO: JP 10147627A

BASIC-ABSTRACT: Curing agent composition comprises: (a) active

methylene-based

block polyisocyanate; (b) aluminium-chelate or Ti-chelate; and (c)

(mono-

and/or di-)alcohols.

USE - Used in paints, electroplating paint, car repair paint, precoated

for electric/office equipments, adhesives and sealants.

ADVANTAGE - Product excels in low temperature curability, storage stability

without causing yellowness by heating.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

CURE AGENT COMPOSITION ELECTROPLATING PAINT COMPRISE ACTIVE METHYLENE

BLOCK POLY ISOCYANATE ALUMINIUM CHELATE TITANIUM CHELATE MONO AND=OR DI ALCOHOL

DERWENT-CLASS: A25 A82 G02

CPI-CODES: A08-C; A08-C09; A08-C09A; A08-D; A08-D04A; A08-D05; A12-B01;

G02-A03; G03-B01; G03-B02; G04-B02;

```
ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
    018 ; G1854*R G1843 D01 F73 G1945*R ; H0011*R ; P0000 ; M9999 M2391
Polymer Index [1.2]
    018 ; ND00 ; Q9999 Q7158*R Q7114 ; Q9999 Q9234 Q9212 ; Q9999
07330*R
    ; Q9999 Q9449 Q8173 ; Q9999 Q6644*R ; Q9999 Q9007 ; K9483*R ; K9552
    K9483 ; K9676*R ; K9712 K9676 ; N9999 N6917 ; B9999 B4988*R B4977
    B4740 ; K9665 ; B9999 B3532 B3372 ; B9999 B4273 B4240 ; N9999
N6177*R
Polymer Index [1.3]
    018 ; D01 D61*R Al 3A ; D01 D61*R Ti 4B Tr ; D01 F28 F26 F29 ; A999
   A157*R ; A999 A771
Polymer Index [2.1]
    018 ; G1456*R G1445 G4024 D01 D63 F41 F90 E00 E28 D11 D10 D50 D87
    ; G1854*R G1843 D01 F73 G1945*R ; H0022 H0011 ; P0635*R F70 D01
    ; L9999 L2528 L2506 ; L9999 L2028 ; L9999 L2391 ; L9999 L2824 ;
   M9999 M2824 ; S9999 S1627 S1605
Polymer Index [2.2]
   018; ND00; Q9999 Q7158*R Q7114; Q9999 Q9234 Q9212; Q9999
Q7330*R
    ; Q9999 Q9449 Q8173 ; Q9999 Q6644*R ; Q9999 Q9007 ; K9483*R ; K9552
   K9483 ; K9676*R ; K9712 K9676 ; N9999 N6917 ; B9999 B4988*R B4977
   B4740 ; K9665 ; B9999 B3532 B3372 ; B9999 B4273 B4240 ; N9999
N6177*R
Polymer Index [2.3]
    018 ; B9999 B4397 B4240 ; K9870 K9847 K9790
Polymer Index [2.4]
    018 ; D01 D11 D10 D50 D63 D87 F89 F41 F23 ; H0226
Polymer Index [2.5]
   018 ; R00304 G3496 D01 D10 D11 D50 D84 F26 F27 ; H0226
Polymer Index [2.6]
   018 ; R01068 D01 D11 D10 D50 D61 D81 F27 F26 Na 1A ; C999 C000*R
    ; C999 C102 C000 ; C999 C306 ; C999 C271
Polymer Index [2.7]
   018 ; G2595*R D01 D11 D10 D50 D63 D86 F41 ; A999 A475
Polymer Index [2.8]
   018 ; D01 D11 D10 D50 D61*R D93 F23 O* 6A Al 3A ; A999 A157*R
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SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-113262

12/27/2002, EAST Version: 1.03.0007

DERWENT-ACC-NO: 1997-532947

DERWENT-WEEK: 199749

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TITLE: Thermosetting composition, for intermediate and top coats for

cars,

etc. $\overline{}$ is obtained by heating at specific temperature a composition

containing

active methylene block poly:isocyanate and poly:hydroxyl compound,

etc., having

improved storage stability

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1996JP-0064036 (March 21, 1996)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 09255915 A September 30, 1997 N/A 009

C09D 175/04

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP 09255915A N/A 1996JP-0064036 March

21, 1996

INT-CL (IPC): C08G018/80; C09D175/04

ABSTRACTED-PUB-NO: JP 09255915A

BASIC-ABSTRACT: The thermosetting composition suitable for coatings

comprises

obtaining by heating at 40-150 deg. C a composition containing (A) an

active

methylene block polyisocyanate and (B) a polyhydroxyl compound in the presence

of (C)mono- and/or difunctional active hydrogen-containing compounds under

conditions containing a non-volatile component of 10-90wt.%.

Also claimed is a manufacturing method for the thermosetting compositions.

 $\ensuremath{\mathsf{USE}}$ – The thermosetting compositions are useful for intermediate and top coats

for cars, chipping resistant coatings, electro-deposition coatings, car parts

coatings, car repair paints, precoat metals and rustproof sheet steel for

household electric appliances and business machines, coatings for building

materials and plastics, adhesives, adhesion- imparting agents and sealing materials.

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ADVANTAGE - The thermosetting compositions have excellent low
curing properties and much improved storage stability.
CHOSEN-DRAWING: Dwg.0/0
TITLE-TERMS:
THERMOSETTING COMPOSITION INTERMEDIATE TOP COAT CAR OBTAIN HEAT
SPECIFIC
TEMPERATURE COMPOSITION CONTAIN ACTIVE METHYLENE BLOCK POLY ISOCYANATE
POLY
HYDROXYL COMPOUND IMPROVE STORAGE STABILISED
DERWENT-CLASS: A25 A82 G02
CPI-CODES: A05-G01A; A05-G01E1; A10-D; A12-B01K; G02-A02H; G02-A05;
G02-A05B;
G02-A05E; G04-B02;
UNLINKED-DERWENT-REGISTRY-NUMBERS: 1068U; 1139U
ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
   018 ; G1854*R G1843 D01 F73 G1945*R ; G1025*R G0997 D01 F28 F26
    ; P0000 ; H0011*R ; L9999 L2528 L2506 ; M9999 M2391 ; H0328 ; M9999
   M2073 ; L9999 L2391 ; L9999 L2073 ; K9665
Polymer Index [1.2]
   018 ; ND01 ; Q9999 Q7114*R ; Q9999 Q7158*R Q7114 ; N9999 N6177*R
    ; Q9999 Q9234 Q9212 ; B9999 B3816 B3747 ; N9999 N7147 N7034 N7023
    ; N9999 N7056 N7034 N7023 ; Q9999 Q7158*R Q7114 ; Q9999 Q7192 Q7114
    ; Q9999 Q7136 Q7114 ; Q9999 Q7681*R ; Q9999 Q7330*R ; Q9999 Q8173*R
    ; Q9999 Q6826*R ; K9676*R ; K9483*R ; K9574 K9483 ; Q9999 Q6644*R
    ; Q9999 Q9007 ; B9999 B3532 B3372
Polymer Index [1.3]
   018 ; H0226
Polymer Index [2.1]
   018; P0088*R; M9999 M2073; L9999 L2391; L9999 L2073; H0328
    ; K9665 ; M9999 M2391
Polymer Index [2.2]
   018 ; ND01 ; Q9999 Q7114*R ; Q9999 Q7158*R Q7114 ; N9999 N6177*R
    ; Q9999 Q9234 Q9212 ; B9999 B3816 B3747 ; N9999 N7147 N7034 N7023
    ; N9999 N7056 N7034 N7023 ; Q9999 Q7158*R Q7114 ; Q9999 Q7192 Q7114
   ; Q9999 Q7136 Q7114 ; Q9999 Q7681*R ; Q9999 Q7330*R ; Q9999 Q8173*R
   ; Q9999 Q6826*R; K9676*R; K9483*R; K9574 K9483; Q9999 Q6644*R
    ; Q9999 Q9007 ; B9999 B3532 B3372
Polymer Index [2.3]
   018 ; K9370 ; B9999 B3554*R
Polymer Index [2.4]
   018 ; R00304 G3496 D01 D10 D11 D50 D84 F26 F27 ; H0226
Polymer Index [2.5]
   018 ; R01455 G1854 G1843 D01 D11 D10 D50 D88 F73 ; A999 A157*R
Polymer Index [2.6]
   018 ; G3430 D01 D02 D11 D10 D19 D18 D31 D50 D76 D88 ; R01135 D01
   D11 D10 D50 D63 D84 F41 F89 ; R00862 D01 D02 D11 D10 D19 D18 D31
   D50 D76 D87; G2595*R D01 D11 D10 D50 D63 D86 F41; R08574 D01 D11
```

D10 D50 D63 D86 F34 F41 F89 ; A999 A475 ; A999 A771

Polymer Index [2.7]
 018; E28 E00 D01 D11 D10 D50 D63 D87 F90 F41; A999 A793

Polymer Index [2.8]
 018; D01 D11 D10 D50 D86 F23; A999 A793

Polymer Index [2.9]
 018; R01068 D01 D11 D10 D50 D61 D81 F27 F26 Na 1A; A999 A793

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-170221

DERWENT-ACC-NO: 1996-450970

DERWENT-WEEK: 199645

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TITLE: Yellowing resistant blocked poly:isocyanate used in paints for

automobiles - prepd using isocyanurate type poly:isocyanate and

malonate

di:ester and acetoacetate ester as blocking agent

PATENT-ASSIGNEE: ASAHI KASEI KOGYO KK[ASAH]

PRIORITY-DATA: 1995JP-0031953 (February 21, 1995)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

JP 08225630 A September 3, 1996 N/A 008

C08G 018/80

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

JP 08225630A N/A 1995JP-0031953

February 21, 1995

INT-CL (IPC): C08G018/75; C08G018/79; C08G018/80

ABSTRACTED-PUB-NO: JP 08225630A

BASIC-ABSTRACT: Blocked polyisocyanate is derived from aliphatic and/or

alicyclic diisocyanate by blocking. The polyisocyanate is an

isocyanurate type

polyisocyanate modified with hydroxyl cpd. and the blocking agent is a

mixt. of

malonic acid diester (30-90 mol%) and acetoacetic acid ester (0-70 $\,$

mol%).

USE - Used in car paints, chipping-resistant paint, precoat metal

corrosion

resistant steel plate, adhesives and sealant.

ADVANTAGE - Product excels in low temp. curability, storage stability

and

yellowness resistance.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

YELLOW RESISTANCE BLOCK POLY ISOCYANATE PAINT AUTOMOBILE PREPARATION ISOCYANURATE TYPE POLY ISOCYANATE MALONATE DI ESTER ACETOACETATE ESTER BLOCK

AGENT

DERWENT-CLASS: A25 A81 A82 G02 G03 M13

CPI-CODES: A08-C06; A08-C09; A08-D; A08-D04A; A12-A05; A12-B01;

```
A12-B04;
A12-R08; A12-T05; G02-A03; G02-A05; G02-A05E; G03-B01; G03-B02;
G04-B02;
M13-H05;
UNLINKED-DERWENT-REGISTRY-NUMBERS: 1711U
ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
    018 ; R01455 G1854 G1843 D01 D11 D10 D50 D88 F73 ; R00831 G1036
    G1025 G0997 D01 D11 D10 D50 D84 F28 F26 ; H0022 H0011 ; H0259 ;
    L9999 L2528 L2506 ; L9999 L2620 L2506 ; P1592*R F77 D01
Polymer Index [1.2]
    018 ; R01455 G1854 G1843 D01 D11 D10 D50 D88 F73 ; R00420 G1070
    G0997 D01 D11 D10 D50 D86 F29 F26 ; H0022 H0011 ; H0259 ; L9999
    L2528 L2506 ; L9999 L2620 L2506 ; P1592*R F77 D01
Polymer Index [1.3]
    018 ; ND01 ; Q9999 Q7158*R Q7114 ; K9665 ; N9999 N7147 N7034 N7023
    ; N9999 N7067 N7034 N7023 ; B9999 B5243*R B4740 ; B9999 B4262 B4240
    ; 09999 06644*R ; Q9999 Q7192 Q7114 ; B9999 B5287 B5276 ; Q9999
    Q9234 Q9212 ; B9999 B3532 B3372 ; B9999 B3678 B3554 ; B9999 B4988*R
    B4977 B4740 ; K9676*R ; K9552 K9483 ; Q9999 Q9007
Polymer Index [1.4]
    018 ; D01 D11 D10 D50 D61*R D93 F16 F36 F35 ; C999 C102 C000 ; C999
    C306
Polymer Index [1.5]
    018 ; R01711 D00 D60 H* O* 6A P* 5A ; C999 C204 ; C999 C306
Polymer Index [1.6]
    018 ; D01 D11 D10 D50 D63 D87 F90 F41 E28 E00 ; D01 D11 D10 D50
    D63 D86 F23 F89 F41; R01068 D01 D11 D10 D50 D61 D81 F27 F26 Na
    1A ; R00304 G3496 D01 D10 D11 D50 D84 F26 F27 ; C999 C180 ; C999
    C306
Polymer Index [1.7]
    018 ; G3430 D01 D02 D11 D10 D19 D18 D31 D50 D76 D88 ; A999 A475
Polymer Index [2.1]
    018 ; R01455 G1854 G1843 D01 D11 D10 D50 D88 F73 ; R00831 G1036
    G1025 G0997 D01 D11 D10 D50 D84 F28 F26 ; R00420 G1070 G0997 D01
    D11 D10 D50 D86 F29 F26 ; P1592*R F77 D01 ; H0033 H0011 ; S9999
   S1627 S1605 ; M9999 M2073
Polymer Index [2.2]
    018 ; ND01 ; Q9999 Q7158*R Q7114 ; K9665 ; N9999 N7147 N7034 N7023
    ; N9999 N7067 N7034 N7023 ; B9999 B5243*R B4740 ; B9999 B4262 B4240
    ; Q9999 Q6644*R ; Q9999 Q7192 Q7114 ; B9999 B5287 B5276 ; Q9999
    Q9234 Q9212 ; B9999 B3532 B3372 ; B9999 B3678 B3554 ; B9999 B4988*R
    B4977 B4740 ; K9676*R ; K9552 K9483 ; Q9999 Q9007
Polymer Index [2.3]
    018 ; G2595*R D01 D11 D10 D50 D63 D86 F41 ; R01135 D01 D11 D10 D50
    D63 D84 F41 F89 ; R00862 D01 D02 D11 D10 D19 D18 D31 D50 D76 D87
    ; R08574 D01 D11 D10 D50 D63 D86 F34 F41 F89 ; A999 A475 ; A999
   A771
SECONDARY-ACC-NO:
```

CPI Secondary Accession Numbers: C1996-141344

DERWENT-ACC-NO: 1988-206162

DERWENT-WEEK: 198830

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TITLE: Aq. electrophoretic coating compsn. contg. oligo:urethane-urea

derived from oligo:amido-amine or epoxy-amine and reactive mixt. of ester and isocyanate $\ensuremath{\mathsf{S}}$

INVENTOR: FINK, H; FRIEDRICH, H ; KRAWTSCHEN, W I ; LEPIN, W F ; PRONINA, I A

; PUDELL, J ; RUDKOWSKAJ, L A ; WASALLJAWA, O W

PATENT-ASSIGNEE: VEB LACKFAB LEIPZIG[LEIPN]

PRIORITY-DATA: 1986DD-0297566 (December 15, 1986)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES

MAIN-IPC

DD 254583 A March 2, 1988 N/A 004

N/A

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

DD 254583A N/A 1986DD-0297566

December 15, 1986

INT-CL (IPC): C09D005/44; C25D013/04

ABSTRACTED-PUB-NO: DD 254583A

BASIC-ABSTRACT: Aq. coating materials esp. for cathodic electrophoretic lacquering of metals, consist of binders based on oligourethane-ureas

obtd. by reacting oligomers (II) contg. amine gps. and partly blocked isocyanates (III), pigments, fillers inhibitors, solvents, neutralising acids

and reactive additives (IV).

The novel features are that (II) are oligoamidoamines (IIA), obtd. by reacting

esters of monomeric and/or dimeric fatty acids with aliphatic polyamines,

and/or epoxyamines (IIB), which are reaction prods. of polyamines and/or

oligoamidoamines with bisphenol A epoxied resins, with an amine equiv. of

100-400; and (IV) are 1-15 (wt.)% esters (IVA) of aliphatic dicarboxylic acids

with 1-5 C mono-alcohol(s) and 1-10% low mol. diisocyanates (IVB), completely

blocked with mixts. of 1-5 C monohydric alcohols.

" * USE/ADVANTAGE - The coatings give good corrosion protection and throw and flow

are inproved. The coatings are more strongly, crosslinked than usual and the

films are nonporous and flawless.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

AQUEOUS ELECTROPHORESIS COATING COMPOSITION CONTAIN OLIGO URETHANE UREA DERIVATIVE OLIGO AMIDO AMINE EPOXY AMINE REACT MIXTURE ESTER ISOCYANATE

DERWENT-CLASS: A82 E19 G02 M11

CPI-CODES: A05-G01E1; A05-J04; A11-B05A; A12-B01K; A12-B04C; E07-D09C; E10-A12C; E10-A13B; E10-G02H; G02-A02H; G02-A05E; M11-G; M14-K;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

Fragmentation Code

J0 J012 J2 J272 L560 M210 M211 M212 M213 M214 M215 M231 M232 M233 M272 M282 M311 M312 M313 M314 M315 M316 M320 M321 M331 M332 M333 M342 M382 M391 M416 M620 M781 M903 M904 Q332 Q462 Q465 Markush Compounds 198830-A1401-U Registry Numbers 3102R 1678D

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0304U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0004 0231 3183 1286 1294 1300 1373 1389 1407 1601 1745 1766 3132

1999 3206 2000 2020 2072 2148 2152 2208 2211 2303 2318 2321 2420 2422 2439 2493

2578 2607 2653 2654 2661 2718 2728 3293

Multipunch Codes: 014 038 04- 075 149 150 154 155 157 174 185 191 199 209 212

220 221 226 23- 231 239 24& 26& 298 305 308 316 333 336 344 346 364 365 40- 400

431 432 47& 473 477 52& 53& 541 545 575 58~ 583 595 596 597 602 656 720 723

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1988-092036

12/27/2002, EAST Version: 1.03.0007

L Number	Hits	Search Text	DB	Time stamp	
1	20849	malonate or acetoacetate	USPAT;	2002/12/27	-
			US-PGPUB;	10:25	
	1		EPO; JPO;		
			DERWENT;		
	1 2000		IBM_TDB		
2	1964	(USPAT;	2002/12/27	
	1	(diisocyanate or polyisocyanate)	US-PGPUB;	10:27	
	-		EPO; JPO;		
			DERWENT;	1	
3	349	//malamata an acata-acta-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-t	IBM_TDB	1	
	349	((malonate or acetoacetate) and	USPAT;	2002/12/27	
	1	(diisocyanate or polyisocyanate)) and	US-PGPUB;	10:27	
	}	(pentanol or ethylhexanol or hexanol)	EPO; JPO;		
			DERWENT;		
	257	(((malonate or acetoacetate) and	IBM_TDB	2002/22/27	
	23/	((inationate of acetoacetate) and (diisocyanate or polyisocyanate)) and	USPAT;	2002/12/27	
		(pentanol or ethylhexanol or hexanol))	US-PGPUB;	10:51	
		and (blocked or blocking or masked or	EPO; JPO;		
		masking)	DERWENT;	ì	
	85	((((malonate or acetoacetate) and	IBM_TDB	2002/12/27	
J		(diisocyanate or polyisocyanate)) and	USPAT; US-PGPUB;	2002/12/27	
		(pentanol or ethylhexanol or hexanol))		10:53	
		and (blocked or blocking or masked or	EPO; JPO;	,	
		masking)) and malonate and acetoacetate	DERWENT;		
6	32	(((((malonate or acetoacetate) and	USPAT;	2002/12/27	
]	(diisocyanate or polyisocyanate)) and	US-PGPUB:	11:25	
		(pentanol or ethylhexanol or hexanol))	EPO; JPO;	11:25	
	1	and (blocked or blocking or masked or	DERWENT;	1	,
		masking)) and malonate and acetoacetate)	IBM TDB		
	1	not cresol	101100		
7	0	isocynatatoethyl adj methacrylate	USPAT;	2002/12/27	
	1		US-PGPUB;	11:26	
			EPO; JPO;	1	
			DERWENT;		
			IBM TDB		
8	1271	isocyanatoethyl adj methacrylate	USPAT;	2002/12/27	
		· · · · · · · · · · · · · · · · · · ·	US-PGPUB;	11:26	:
			EPO; JPO;		٠
			DERWENT;		í
			IBM TDB		
9	76	(isocyanatoethyl adj methacrylate) and	USPAT;	2002/12/27	
		(malonate)	US-PGPUB;	11:27	
			EPO; JPO;		
			DERWENT;		
			IBM_TDB		
10	23	((isocyanatoethyl adj methacrylate) and	USPAT;	2002/12/27	
		(malonate)) and (blocked or blocking or	US-PGPUB;	11:27	1
		masked or masking)	EPO; JPO;		
			DERWENT;		i
			IBM_TDB		

```
=> d 2 4-7 9-11 all
    ANSWER 2 OF 12 CAPLUS COPYRIGHT 2002 ACS
T.7
     2000:733160 CAPLUS
AN
DN
     133:310961
     Preparation of blocked polyisocyanate-based one liquid-type
     coating composition
IN
    Suzuki, Shinji; Hamatsu, Takao
    Asahi Chemical Industry Co., Ltd., Japan
PA
    Jpn. Kokai Tokkyo Koho, 9 pp.
SO
    CODEN: JKXXAF
DT
    Patent
    Japanese
LA
    ICM C08L075-04
     ICS C08G018-80; C08K005-01; C09D175-04
     42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1
                    KIND DATE
                                          APPLICATION NO. DATE
    PATENT NO.
     -----
                                          ______
                                          JP 1999-102447 19990409
ΡI
    JP 2000290493
                    A2 20001017
    Title compn. which is difficultly crystd. at low temp., is curable at
    low-temp., and has storage stability comprises (A) blocked
     isocyanurate-type polyisocyanate prepd. from aliph. and/or
    aliph. cyclic diisocyanate and malonic acid diester-contg.
    blocking agent, (B) monofunctional active hydrogen-contg. compd. contg.
     .gtoreq.1 monoalc. and with b.p. <200.degree., and (C) toluene-contg.
    solvents. Thus a compn. contg. hexamethylene diisocyanate-based
    polyisocyanate 100, di-Me malonate 53, Et acetoacetate 29, n-
    butanol \bar{5}1, toluene 68 parts was prepd. showing gelation rate 77%
    at 80.degree. and 85% at 90.degree., and good crystn.-inhibiting property
    and storage stability.
    blocked polyisocyanate polyurethane coating compn; malonic acid
    ester blocking agent blocked polyisocyanate compn
IT
    Alcohols, uses
    RL: NUU (Other use, unclassified); USES (Uses)
        (compn. contg.; prepn. and properties of blocked polyisocyanate
       -based one liq.-type coating compn.)
    Polyurethanes, uses
    Polyurethanes, uses
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
    engineered material use); PREP (Preparation); USES (Uses)
        (polyisocyanurate-; prepn. of blocked polyisocyanate-based
       one liq.-type coating compn.)
TΥ
    Polyisocyanurates
    Polyisocyanurates
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
    engineered material use); PREP (Preparation); USES (Uses)
        (polyurethane-; prepn. of blocked polyisocyanate-based one
       liq.-type coating compn.)
TT
    Crystallization
        (prepn. and properties of blocked polyisocyanate-based one
       liq.-type coating compn.)
IT
    Coating materials
       (prepn. of blocked polyisocyanate-based one liq.-type coating
       compn.)
IΤ
    105-53-3, Diethyl malonate 123-51-3, Isopentanol
                                                         141-97-9,
    Ethyl acetoacetate
    RL: NUU (Other use, unclassified); USES (Uses)
       (blocking agent; prepn. of blocked polyisocyanate-based one
```

78-83-1, Isobutanol, uses 78-92-2,

liq.-type coating compn.)
71-36-3, n-Butanol, uses 7

ፐጥ

```
2-Butanol
    RL: NUU (Other use, unclassified); USES (Uses)
        (compn. contg.; prepn. of blocked polyisocyanate-based one
       liq.-type coating compn.)
    127499-78-9P
ΙT
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
    engineered material use); PREP (Preparation); USES (Uses)
        (prepn. of blocked polyisocyanate-based one liq.-type coating
       compn.)
    108-88-3, Toluene, uses
ΤT
    RL: NUU (Other use, unclassified); USES (Uses)
        (solvent; prepn. of blocked polyisocyanate-based one
       liq.-type coating compn.)
    ANSWER 4 OF 12 CAPLUS COPYRIGHT 2002 ACS
L7
    1999:208628 CAPLUS
AN
     130:267888
DN
    Monomer composition and production method of vinyl polymer
TΙ
    Usui, Taketoshi; Asahina, Yoshiyuki
IN
     Asahi Chemical Industry Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 12 pp.
SO
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA
     ICM C08G018-80
IC
     ICS C08G018-81; C08F026-02; C09D175-04; C09J175-04
     35-4 (Chemistry of Synthetic High Polymers)
     Section cross-reference(s): 37, 42
                           DATE APPLICATION NO. DATE
FAN.CNT 1
                  KIND DATE
     PATENT NO.
                     ----
     JP 11080313 A2 19990326 JP 1997-236995 19970902
PΙ
     The curable one-component compn., with good storage stability and useful
     as coating, comprises a vinyl monomer contg. methane tricarboxylilc acid
     monoamide unit and a monoalc. and/or a diol, optionally a polyvalent
     hydroxy compd. Thus, 100 parts 2-isocyanatoethyl methacrylate reacted
     with 109 parts di-Et malonate in the presence of Na methylate followed by
     reaction with 96 parts BuOH to obtain a vinyl polymer, 61 parts of which
     was blended with 30 parts Bu methacrylate and 30 parts Bu acrylate in
     xylene and Bu acetate to give a thermosetting compn.
     isocyanatoethyl methacrylate curable one component compn; polyol blocked .
ST
     isocyanate one component thermosetting; methacrylate acrylate
     isocyanatoethyl polymer blocked; blocked polyisocyanate curing
     agent polyol coating
     Polyurethanes, preparation
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (acrylic, block; monomer compn. and prodn. method of vinyl polymer)
     Crosslinking agents
TT
        (monomer compn. and prodn. method of vinyl polymer)
     Coating materials
IT
        (one-component; monomer compn. and prodn. method of vinyl polymer)
     Acrylic polymers, preparation
TΤ
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (polyurethane-, block; monomer compn. and prodn. method of vinyl
        polymer)
     Coating materials
ΙT
         (thermosetting; monomer compn. and prodn. method of vinyl polymer)
     Plastics, preparation
 TT
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
      engineered material use); PREP (Preparation); USES (Uses)
```

(thermosetting; monomer compn. and prodn. method of vinyl polymer)

71-36-3DP, Butanol, reaction products with isocyanate-pendent vinyl monomers and diol 105-53-3DP, Diethyl malonate, reaction products with isocyanate-pendent vinyl polymers and monohydric alcs 123-86-4DP, Butyl acetate, reaction products with isocyanate-pendent vinyl polymers and monohydric alcs 141-97-9DP, Ethyl acetoacetate, reaction products with isocyanate-pendent vinyl polymers and monohydric alcs 30674-80-7DP, 2-Isocyanatoethyl methacrylate, reaction products with malonate ester, acetoacetate ester and monoalcs. 222037-13-0P RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (monomer compn. and prodn. method of vinyl polymer)

```
ANSWER 5 OF 12 CAPLUS COPYRIGHT 2002 ACS
L7
ΑN
    1999:107040 CAPLUS
    130:169650
DN
    Blocked isocyanate-pendent vinyl polymer curing agent compositions and
TI
     one-component thermosetting compositions for coatings using them
    Usui, Taketoshi; Asahina, Yoshiyuki
IN
    Asahi Chemical Industry Co., Ltd., Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 9 pp.
SO
     CODEN: JKXXAF
DT
    Patent
     Japanese
LA
     ICM C08G018-80
IC
     ICS C08G018-81; C09D175-04; C09J175-04
     42-10 (Coatings, Inks, and Related Products)
CC
FAN.CNT 1
                                         APPLICATION NO. DATE
                  KIND DATE
                          DATE
     PATENT NO.
                                         _____
     _____
                     ____
     JP 11035658 A2 19990209 JP 1997-210216 19970722
PΙ
     Curing agent compns. contain (A) activated methylene-having blocked
AΒ
     isocyanate-contg. vinyl polymers obtained by the reaction of NCO-contg.
     vinyl polymers with av. NCO functional group content 2-25 and Mn
     1000-20,000 with .gtoreq.1 activated methylene compd. including malonate
     diesters and (B) monohydric alcs. and/or diols with b.p.
     .gtoreq.250.degree. at an equiv ratio of the OH in (B) to the blocked
     isocyanate in (A) of 0.2-10. Thermosetting compns. contain the curing
     agent compns. and polyols. Thus, 100 parts NCO-contg. vinyl polymer
     (prepd. from styrene 25, Bu methacrylate 25, Bu acrylate 20, and
     2-isocyanatoethyl methacrylate 30 parts; av. NCO content 13, Mn 7000)
     reacted with 12.5 parts di-Et malonate and 2.5 parts Et acetoacetate at
     80.degree. for 2 h, followed by reaction with 13.8 parts_BuOH to obtain a
     blocked isocyanate-contg. vinyl polymer, 100 parts of which was blended
     with 80 parts Acrydic A 801 and dild. to give a thermosetting compn. with
     good curability at 80-90.degree. and storage stability.
     blocked isocyanate vinyl polymer curing agent; malonate ester blocked
     isocyanate curing agent; polyol blocked isocyanate one component
     thermosetting; active methylene blocked isocyanate crosslinking agent;
     coating low temp thermosetting storage stability; styrene methacrylate
     acrylate isocyanatoethyl polymer blocked; acetoacetate blocked
     polyisocyanate curing agent polyol
     Crosslinking agents
TT
     Methylene group
     Protective groups
        (blocked isocyanate-pendent vinyl polymer curing agent compns. for
        one-component thermosetting coating compns.)
ΙT
     Coating materials
        (one-component; blocked isocyanate-pendent vinyl polymer curing agent
        compns. for one-component thermosetting coating compns.)
```

(storage-stable; blocked isocyanate-pendent vinyl polymer curing agent

Coating materials

IT

```
compns. for one-component thermosetting coating compns.)
    Coating materials
TT
        (thermosetting; blocked isocyanate-pendent vinyl polymer curing agent
        compns. for one-component thermosetting coating compns.)
     67-63-0DP, 2-Propanol, reaction products with isocyanate-pendent vinyl
IT
    polymers and diesters, uses
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (blocked isocyanate-pendent vinyl polymer curing agent compns. for
        one-component thermosetting coating compns.)
    220451-05-8P, Acrydic A 801-butyl acrylate-butyl methacrylate-2-
IT
    isocyanatoethyl methacrylate-styrene copolymer 220451-06-9P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (crosslinked; blocked isocyanate-pendent vinyl polymer curing agent
        compns. for one-component thermosetting coating compns.)
ΙT
    71-36-3DP, Butanol, reaction products with isocyanate-pendent
    vinyl polymers and diesters 105-53-3DP, Diethyl malonate,
     reaction products with isocyanate-pendent vinyl polymers and monohydric
     alcs. 141-97-9DP, Ethyl acetoacetate, reaction products with
     isocyanate-pendent vinyl polymers and monohydric alcs. 130480-37-4DP,
     Butyl acrylate-butyl methacrylate-2-isocyanatoethyl methacrylate-styrene
     copolymer, reaction products with malonate ester, acetoacetate ester, and
    butanol 220451-01-4DP, Butyl acrylate-butyl methacrylate-2-
    isocyanatoethyl methacrylate-methyl methacrylate copolymer, reaction
    products with malonate ester, acetoacetate ester, and monohydric alcs.
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (crosslinking agent; blocked isocyanate-pendent vinyl polymer curing
        agent compns. for one-component thermosetting coating compns.)
    ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS
L7
AN
    1998:586376 CAPLUS
    129:261801
DN
TI
    Hardener compositions containing blocked polyisocyanates and one-liquid
    thermosetting polyurethane compositions containing the hardeners
    Usui, Taketoshi; Asahina, Yoshiyuki
IN
    Asahi Chemical Industry Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 10 pp.
SO
    CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
    ICM C08G018-80
ICS C08L075-04
     42-3 (Coatings, Inks, and Related Products)
    Section cross-reference(s): 37
FAN.CNT 1
    PATENT NO.
                  KIND DATE
                                    APPLICATION NO, DATE
    JP 10237154 A2 19980908 JP 1997-42662 19970226
PΙ
    Hardeners with improved storage stability contain (A) polyisocyanates
    blocked with active methylene compds., (B) chelates and/or alcoholates of
    Al, Ti, or Zr, (C) monoalcs. and/or di-alcs., and (D) chelating agents.
    One-lig. thermosetting polyurethane compns. useful for coatings showing
     low-temp. curability contain the hardeners and polyhydric compds. Thus,
     reacting 100 parts HMDI and 3.3 parts trimethylolpropane followed by
     treatment with Bu4N acetate, reacting 100 parts resulting isocyanurate
    polyisocyanate, 52 parts di-Et malonate, and 21 parts Et
    acetoacetate, adding 71 parts BuOH to the product to give a 60%-solids
    polyisocyanate soln., and mixing 100 parts of the soln., 4.6 parts
     Al tris(acetylacetonate) (I), and 4.9 parts acetylacetone (II) at
     60.degree. for 1 h gave a hardener compn. showing no gelation or
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coloration after a 1-mo storage. Then, mixing the hardener compn. 100, an
    acrylic polyol (Acrydic A 801) 184, I 4.6, MeOH 15, and II 4.9 parts,
    dilg. the compn. with solvents, spraying the dild. compn. on a
    polypropylene sheet, baking the coating at 80.degree. for 30 min, peeling
    off the coating film from the sheet, and impregnating the film in Me2CO
    for 24 h showed .gtoreq.85% wt. retention of the film (i.e., good
    curability).
    blocked polyisocyanate hardener polyurethane coating; one liq
    polyurethane coating hardener; malonate acetoacetate blocking agent
    polyisocyanate; aluminum acetylacetonate blocked
    polyisocyanate hardener; metal chelate alcoholate hardener;
    acetylacetone chelating agent blocked polyisocyanate;
    hexamethylene diisocyanate trimethylolpropane copolymer
    isocyanurate hardener; acrylic polyol blocked polyisocyanate
    thermosetting coating; storage stability blocked polyisocyanate
    hardener
ΙT
    Storage
        (-stable; blocked polyisocyanate compns. contg. metal
       chelates as storage-stable hardener compns. for one-liq. thermosetting
       polyurethane coatings)
     Polyurethanes, uses
IΤ
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (acrylic, coatings; blocked polyisocyanate compns. contg.
       metal chelates as storage-stable hardener compns. for one-liq.
        thermosetting polyurethane coatings)
IT
     Crosslinking agents
     Protective groups
        (blocked polyisocyanate compns. contg. metal chelates as
        storage-stable hardener compns. for one-liq. thermosetting polyurethane
        coatings)
    Chelates
TΤ
     RL: MOA (Modifier or additive use); USES (Uses)
        (blocked polyisocyanate compns. contg. metal chelates as
        storage-stable hardener compns. for one-liq. thermosetting polyurethane
        coatings)
     Chelating agents
IT
        (in blocked polyisocyanate compns. contg. metal chelates as
        storage-stable hardener compns. for one-liq. thermosetting polyurethane
        coatings)
     Polyurethanes, uses
ΙT
     Polyurethanes, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (polyisocyanurate-; blocked polyisocyanate compns. contg.
        metal chelates as storage-stable hardener compns. for one-liq.
        thermosetting polyurethane coatings)
     Polyisocyanurates
     Polyisocyanurates
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (polyurethane-; blocked polyisocyanate compns. contg. metal
        chelates as storage-stable hardener compns. for one-liq. thermosetting
        polyurethane coatings)
     Coating materials
IT
        (thermosetting; blocked polyisocyanate compns. contg. metal
        chelates as storage-stable hardener compns. for one-liq. thermosetting
        polyurethane coatings)
     555-31-7, Aluminum triisopropylate 13963-57-0, Aluminum
TΤ
                            14782-75-3, Ethyl acetoacetate aluminum
     tris(acetylacetonate)
     diisopropylate 17501-44-9, Zirconium tetrakis(acetylacetonate)
     17501-79-0
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RL: MOA (Modifier or additive use); USES (Uses)
        (blocked polyisocyanate Compns. contg. metal chelates as storage-stable hardener compns. for one-liq. thermosetting polyurethane
        coatings)
     28574-90-5DP, Hexamethylene diisocyanate trimer, reaction
TΤ
     products with isocyanurate polyisocyanates
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (buret, hardeners; blocked polyisocyanate compns. contg.
        metal chelates as storage-stable hardener compns. for one-liq.
        thermosetting polyurethane coatings)
ΙT
     123-54-6, 2,4-Pentanedione, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (chelating agents; blocked polyisocyanate compns. contg.
        metal chelates as storage-stable hardener compns. for one-liq.
        thermosetting polyurethane coatings)
     140435-05-8P, Acrydic A 801-hexamethylene diisocyanate copolymer
                   183121-77-9P, Acrydic A 801-hexamethylene
     156179-18-9P
     diisocyanate-trimethylolpropane copolymer
                                                  197902-71-9P
     209330-85-8P 213618-92-9P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (coatings; blocked polyisocyanate compns. contg. metal
        chelates as storage-stable hardener compns. for one-liq. thermosetting
        polyurethane coatings)
     105-53-3DP, Diethyl malonate, reaction products with isocyanurate polyisocyanates 141-97-9DP, Ethyl acetoacetate, reaction products with
TΤ
                                      81544-19-6DP, Duranate 24A-100, reaction isocyanates 90651-35-7DP, Vestanat T
     isocyanurated polyisocyanates
     products with isocyanurate polyisocyanates
     1890/100, reaction products with isocyanurate polyisocyanates
     197808-90-5DP, Duranate P 301-75E, reaction products with isocyanurate
     polyisocyanates
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (hardeners; blocked polyisocyanate compns. contg. metal
        chelates as storage-stable hardener compns. for one-liq. thermosetting
        polyurethane coatings)
     67-56-1, Methanol, uses
                               71-36-3, 1-Butanol, uses
ΙT
     1,3-Butanediol
     RL: NUU (Other use, unclassified); USES (Uses)
        (in blocked polyisocyanate compns. contg. metal chelates as
        storage-stable hardener compns. for one-liq. thermosetting polyurethane
        coatings)
     28182-81-2DP, Hexamethylene diisocyanate homopolymer, reaction
     products with di-Et malonate and Et acetoacetate 30322-28-2DP,
     Hexamethylene diisocyanate-trimethylolpropane copolymer,
     reaction products with di-Et malonate and Et acetoacetate
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (isocyanurate ring-contg., hardeners; blocked polyisocyanate
        compns. contg. metal chelates as storage-stable hardener compns. for
        one-liq. thermosetting polyurethane coatings)
     ANSWER 7 OF 12 CAPLUS COPYRIGHT 2002 ACS
L7
    1998:352160 CAPLUS
ΑN
DN
     129:82416
TТ
     Curing agent compositions and low temperature-curable one-component
     thermosetting resin compositions therefrom
     Usui, Taketoshi; Asahina, Yoshiyuki
IN
     Asahi Chemical Industry Co., Ltd., Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 10 pp.
SO
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CODEN: JKXXAF

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DT
    Patent
LA
    Japanese
    ICM C08G018-80
IC
    ICS C08G018-22; C09D175-04
    37-6 (Plastics Manufacture and Processing)
    Section cross-reference(s): 42
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                          APPLICATION NO. DATE
                                           ______
    JP 10147627 A2 19980602
                                          JP 1996-318545 19961115
PΙ
    The curing agent compns. comprise (a) blocked polyisocyanates prepd. by
     reaction of polyisocyanates with active methylene compds., (b) Al chelates
    and/or Ti chelates, and (c) monoalcs. and/or dialcs. The one-component
    thermosetting resin compns. with good storage stability contain (a), (b),
    (c), and (d) polyhydroxy compds. Thus, 100 parts isocyanurate-contg. polyisocyanate prepd. by reaction of 100 parts hexamethylene
    diisocyanate with 3.3 parts trimethylolpropane was reacted with 52
    parts di-Et malonate, 21 parts Et acetoacetonate and added with n-BuOH to
    give a blocked polyisocyanate, which was mixed with 4.6 phr Al
    tris(acetylacetonate) (I) and BuOAc to give a curing agent compn. Then,
    100 parts of the blocked polyisocyanate was mixed with 184 parts
    Acrydic A 801 (acrylic polyols, resin contents 50%), 46 parts 10- soln. of
    I, and solvents to give a compn. showing good storage stability, which was
    sprayed and cured to give a test piece showing good curability at
    80.degree. and low yellowness by heating at 140.degree..
    curing agent one liq thermosetting coating; hexamethylene
ST
    diisocyanate trimethylol propane blocked polyisocyanate;
    diethyl malonate ethyl acetoacetonate block group; aluminum
     trisacetylacetonate catalyst low temp curable
IT
    Coating materials
        (one-component; prepn. of low temp.-curable one-component thermosetting
        resin compns. from active methylene compd.-blocked polyisocyanates)
IT
    Crosslinking agents
        (prepn. of curing agent compns. from active methylene compd.-blocked
       polyisocyanates)
ΙT
    Polyurethanes, preparation
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
    engineered material use); PREP (Preparation); USES (Uses)
        (prepn. of low temp.-curable one-component thermosetting resin compns.
        from active methylene compd.-blocked polyisocyanates)
IT
    Coating materials
        (thermosetting; prepn. of low temp.-curable one-component thermosetting
        resin compns. from active methylene compd.-blocked polyisocyanates)
    140435-05-8P 156179-18-9P 183121-77-9P, Acrydic A 801-hexamethylene
TΤ
    diisocyanate-trimethylolpropane copolymer 197902-71-9P
    209330-85-8P
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
    engineered material use); PREP (Preparation); USES (Uses)
        (prepn. of low temp.-curable one-component thermosetting resin compns.
        from active methylene compd.-blocked polyisocyanates)
IT
    13963-57-0, Aluminum tris(acetylacetonate)
                                                14284-96-9, Titanium
     tris(acetylacetonate)
                             15306-17-9
    RL: CAT (Catalyst use); USES (Uses)
        (prepn. of low temp.-curable one-component thermosetting resin compns.
        from active methylene compd.-blocked polyisocyanates and)
                                107-88-0, 1,3-Butanediol
IT
    71-36-3, 1-Butanol, uses
    RL: NUU (Other use, unclassified); USES (Uses)
        (prepn. of low temp.-curable one-component thermosetting resin compns.
        from active methylene compd.-blocked polyisocyanates and)
    105-53-3DP, Diethyl malonate, reaction products with
IΤ
                     141-97-9DP, Ethyl acetoacetate, reaction products with
    polyisocyanates
    polyisocyanates
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RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (prepn. of low temp.-curable one-component thermosetting resin compns. from active methylene compd.-blocked polyisocyanates of) ANSWER 9 OF 12 CAPLUS COPYRIGHT 2002 ACS 1997:654846 CAPLUS 127:332862 Storage-stable and low-temperature-curable coating compositions and their manufacture Usui, Taketoshi; Asahina, Yoshiyuki Asahi Chemical Industry Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF Patent Japanese ICM C09D175-04 ICS C08G018-80 42-10 (Coatings, Inks, and Related Products) FAN.CNT 1 APPLICATION NO. DATE KIND DATE -----_____ JP 09255915 A2 19970930 JP 1996-64036 19960321 Title compns. are prepd. by heating active methylene compd.-blocked polyisocyanates and polyhydric compds. in the presence of mono- or di-functional active H compds. under a nonvolatile content of $10-90^{\star}$ and at 40-150.degree.. A mixt. of di-Et malonate- and Et acetoacetate-block polymeric HMDI 100, Acrydic A 801 (50% soln.) 252, BuOH 27, and org. solvent blend 68 parts was heated at 70.degree. for 1 h to form a compn., which was dild. with solvent blends to form a coating with Ford cup 4 viscosity of 20 s at 20.degree.and showing storage stability at 40.degree. for 1 mo and 100-120.degree. curability. low temp curable polyol polyisocyanate coating; storage stability polyol polyisocyanate alc coating Polyurethanes, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic; manuf. of low-temp.-curable and storage-stable polyurethane coatings) Coating materials (manuf. of low-temp.-curable and storage-stable polyurethane coatings) Alcohols, reactions RL: RCT (Reactant); RACT (Reactant or reagent) (manuf. of low-temp.-curable and storage-stable polyurethane coatings) Acrylic polymers, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurethane-; manuf. of low-temp.-curable and storage-stable polyurethane coatings) 105-53-3DP, Diethyl malonate, reaction products with polyisocyanates 141-97-9DP, Ethyl acetoacetate, reaction products with polyisocyanates 3779-63-3DP, reaction products with di-Et malonate and Et acetoacetate 50886-64-1DP, reaction products with di-Et malonate and Et acetoacetate 73666-46-3DP, Vestanat T 1890, reaction products with di-Et malonate and Et acetoacetate 91931-89-4DP, Duranate 24A, reaction products with di-Et malonate and Et acetoacetate 197808-90-5DP, Duranate P 301-75E, reaction products with di-Et malonate and Et acetoacetate RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (manuf. of low-temp.-curable and storage-stable polyurethane coatings) 127499-78-9P, Acrydic A 801-HMDI isocyanurate copolymer 148277-95-6P

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160243-82-3P 197022-90-5P 197902-71-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manuf. of low-temp.-curable and storage-stable polyurethane coatings) 67-56-1, Methanol, reactions 67-63-0, Isopropanol, reactions ΤT 1-Butanol, reactions 96-29-7, Methyl ethyl ketoxime 108-95-2, Phenol, reactions 111-76-2, Butyl Cellosolve RL: RCT (Reactant); RACT (Reactant or reagent) (manuf. of low-temp.-curable and storage-stable polyurethane coatings) ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS L7 1996:678597 CAPLUS ΑN 125:302441 DN Polyisocyanates blocked with malonate diesters and acetoacetate esters and ΤI storage-stable crosslinking compositions therefrom and one-liquid thermosetting resin compositions containing them curable at low temperatures IN Usui, Taketoshi; Asahina, Yoshuki Asahi Chemical Ind, Japan PA Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF DT Patent Japanese LΑ IC ICM C08G018-80 ICS C08G018-75; C08G018-79 37-6 (Plastics Manufacture and Processing) Section cross-reference(s): 38, 42 FAN.CNT 1 PATENT NO. APPLICATION NO. DATE KIND DATE JP 08225630 A2 19960903 JP 1995-31953 19950221 PΙ The blocked polyisocyanates (A) comprise aliph. and/or alicyclic diisocyanates, which are modified with OH compds. and the resulting isocyanurates are blocked with mixts. comprising 30-90 equiv% malonate diesters and 10-70 equiv% acetoacetate esters, and the crosslinking compns. comprise A and alcs. with b.p. .ltoreq.200.degree. as solvents as the essential components. The curable one-liq. thermoplastic resin compns. contain polyhydric hydroxy compds. and A as the main components, are resistant to yellowing by heat, and are useful for coatings (with data), adhesives, tackifiers, and sealants (no data). Thus, 100 parts HDI and 1.2 part 1,3-butanediol were heated at 80.degree. for 2 h in the presence of tetrabutylammonium acetate and 100 parts of the resulting polyisocyanurate polyisocyanate were treated with 42 parts diEt malonate and 34 parts Et acetoacetate in xylene in the presence of NaOMe at 60.degree. for 6 h to give a blocked polyisocyanate (I), which was mixed with 14 parts BuOH to give a soln. exhibiting no crystn. on storing the soln. for 2 wk at 5.degree.. blocked polyisocyanate crosslinking agent; malonate ester blocking agent polyisocyanate; acetoacetate ester blocking agent polyisocyanate; storage stability blocked polyisocyanate crosslinking agent; yellowing resistance blocked polyisocyanate crosslinker; hexamethylene diisocyanate butanediol copolymer blocked crosslinker; butanol blocked polyisocyanate mixt crosslinker; thermosetting compn polyisocyanate crosslinker; coating blocked polyisocyanate crosslinking agent; adhesive blocked polyisocyanate crosslinking agent; sealant blocked polyisocyanate crosslinking agent ΙT Crosslinking agents (blocked polyisocyanates; storage-stable compns. for one-liq. thermosetting resin compns. curable at low temps.) TΨ Coating materials (blocking of aliph. and/or alicyclic diisocyanate-derived polyisocyanurates for hardeners for one-liq. thermosetting resins as)

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ΤT
     Urethane polymers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (acrylic, coatings; with improved storage stability and resistance to
        yellowing by heat)
     Urethane polymers, uses
ΙT
     RL: MOA (Modifier or additive use); USES (Uses)
        (isocyanate-terminated, blocked, crosslinking agents; storage-stable
        compns. for one-liq. thermosetting resin compns. curable at low temps.)
     Acrylic polymers, uses
IΤ
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polyurethane-, coatings; with improved storage stability and
        resistance to yellowing by heat)
ΙT
     Discoloration prevention
        (yellowing, f one-liq. thermosetting resins compns. contg. blocked
        polyisocyanates for)
     10534-59-5, Tetrabutylammonium acetate
IT
     RL: CAT (Catalyst use); USES (Uses)
        (catalyst; for blocking of polyisocyanates with di-Et malonate and Et
        acetoacetate)
     183121-77-9P 183121-78-0P
TT
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (coatings; with improved storage stability and resistance to yellowing
        by heat)
     105-53-3DP, Diethyl malonate, reaction products with
IΤ
    polyisocyanates 141-97-9DP, Ethyl acetoacetate, reaction products with
    polyisocyanates 30322-28-2DP, Hexamethylene diisocyanate
     -trimethylolpropane copolymer, reaction products with di-Et malonate and
     Et acetoacetate 81217-97-2DP, 1,3-Butanediol-hexamethylene
     diisocyanate copolymer, reaction products with di-Et malonate and
     Et acetoacetate 81295-91-2DP, 1,3-Butanediol-hexamethylene
     diisocyanate copolymer, sru, reaction products with di-Et malonate
     and Et acetoacetate
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (crosslinking agent; storage-stable compns. for one-liq. thermosetting
        resin compns. curable at low temps.)
ΙT
     71-36-3, 1-Butanol, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (solvent; for blocked polyisocyanate crosslinking compns.
        with improved storage stability)
L7
    ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS
     1988:612475 CAPLUS
AN
DN
    109:212475
    Compositions containing oligomeric urea-urethane resin binders for
TТ
    cathodic coating
ΙN
    Fink, Horst; Friedrich, Hans; Pudell, Jutta; Pronina, I. A.; Vasil'eva, O.
    V.; Gvozdeva, E. N.; Lapin, V. F.; Kravchenko, V. I.; Rudkovskaya, L. A.;
     Ruchkin, A. A.
    VEB Farben- und Lackfabrik Leipzig, Ger. Dem. Rep.
PΑ
SO
     Ger. (East), 4 pp.
     CODEN: GEXXA8
DT
     Patent
LA
     German
    ICM C09D005-44
IC
     ICS C25D013-04
     42-7 (Coatings, Inks, and Related Products)
     Section cross-reference(s): 55, 56
FAN.CNT 1
                                          APPLICATION NO. DATE
                   KIND DATE
    PATENT NO.
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DD 1986-297566
                            19880302
ΡI
    DD 254583
                       A1
    The title compns. contain esters of aliph. dicarboxylic acids and C1-5
     alcs. and C1-5 alc.-blocked diisocyanates as additives which improve the
     corrosion resistance, d., flow, and adhesion of the coatings. Thus, 680
     parts oligomeric urea-urethane resin from soybean oil fatty acid Me
     ester-triethylenetetramine adduct (amine equiv. 180) and BuOH-blocked
     2,4-toluene diisocyanate (free NCO content 22.9%; blocked NCO
     content 13.7%) was mixed with di-Et malonate 20, alc. (1:1:1
     MeOH-iso-BuOH-isoamyl alc.)-blocked TDI 20, solvent (glycol) 30, and
     pigment/filler 250 parts, mixed with AcOH to give pH 5-6, dild. with water
     to 20% solids, and cathodically deposited to give a coating.
     corrosion resistance polyurethane polyurea; polyurethane polyurea coating
ST
     anticorrosive; triethylenetetramine polyurethane polyurea coating;
     malonate polyurethane polyurea coating; cathodic coating polyurethane
     polyurea; TDI blocking cathodic coating
     Coating materials
ΙT
        (anticorrosive, cathodic, polyurethane-polyureas, additives for)
     Coating materials
ΙT
        (cathodic, polyurea-polyurethanes, additives for)
     71-36-3D, Butanol, reaction products with TDI,
IT
     polyurethane-polyureas 80-05-7D, Dian, polyurethane-polyureas
     107-18-6D, Allyl alcohol, reaction products with TDI, polyurethane-
     polyureas 112-24-3D, Triethylenetetramine, polyurea-polyurethanes
     584-84-9D, 2,4-Toluene diisocyanate, reaction products with
     alcs., polyurethane-polyureas 682-09-7D, Trimethylolpropane diallyl
     ether, reaction products with diisocyanates, polyurethane-polyureas
     4098-71-9D, reaction products with trimethylolpropane diallyl ether,
     polyurethane-polyureas
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, anticorrosive, cathodic)
     64-17-5D, Ethanol, reaction products with TDI, polyurea-polyurethanes 67-56-1D, Methanol, reaction products with TDI, polyurea-polyurethanes
ΙT
     67-63-0D, Isopropanol, reaction products with TDI, polyurea-polyurethanes
     71-41-0D, Amyl alcohol, reaction products with TDI, polyurea-polyurethanes
     75-85-4D, tert-Amyl alcohol, reaction products with TDI,
                               78-83-1D, Isobutanol, reaction products with TDI,
     polyurea-polyurethanes
                               123-51-3D, Isoamyl alcohol, reaction products
     polyurea-polyurethanes
                                         26471-62-5D, TDI, reaction products
     with TDI, polyurea-polyurethanes
     with alcs., polyurea-polyurethanes
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, cathodic, anticorrosive)
     105-53-3, Diethyl malonate 106-65-0, Dimethyl succinate
ΙT
     34212-60-7
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(polyurethane-polyureas contg., for cathodic coatings)

RL: USES (Uses)